Data Description for Davis Pond Trawl Samples

General:

The Louisiana Department of Wildlife and Fisheries (LDWF) generates these data on a regular schedule by means of samples with trawl nets at 33 fixed locations. These locations are identified as numbered stations. A sampling event consists of pulling a trawl net through the water for ten minutes. The effort is designed mainly to monitor shrimp size and abundance in order to regulate the commercial harvest season for white and brown shrimp. The by-catch, consisting of fin fish, crabs, and squid, is also measured. Each record includes physical and meteorological measurements coincident with the sample.

LDWF takes weekly trawl samples from March through October at 19 shallow water stations and 14 deep water stations. Durings the months of November through February, only the deep water stations are sampled, with the schedule relaxed to one sample every two weeks. For shallow water sampling, the LDWF uses a 6-foot flat otter trawl with 5/8" bar wings and ¼" bar tail. Deep water sampling employs a 16-foot flat otter trawl with ¾" bar wings and ¼" bar tail.

All shrimp and finfish collected in the sample are classified and counted. Abundance permitting, fifty randomly-selected individuals from each species are measured and their length recorded in 5 millimeter increments.

LDWF uses the trawl catch to monitor the blue crab fishery in the Barataria Basin. All crabs are counted, and (abundance permitting) fifty randomly-selected crabs are measured and sexed.

Data Column Descriptions:

Station: See Map 2003-04-0318.pdf for station locations. The geographic coordinates of the stations are reported below.

Six-Foot Trawl Stations

Station	Latitude	Longitude
003	29° 21' 42"	90° 02' 00"
006	29° 26' 36"	89° 50' 30"
009	29° 23' 00"	89° 50' 00"
020	29° 13' 18"	90° 06' 42"
022	29° 13' 06"	90° 04' 54"
023	29° 17' 06"	90° 07' 42"
024	29° 20' 06"	90° 07' 18"
025	29° 26' 12"	90° 03' 48"
026	29° 33' 42"	89° 57' 06"
027	29° 31' 30"	89° 57' 15"
028	29° 27' 30"	90° 00' 36"
029	29° 27' 42"	90° 06' 30"
030	29° 15' 06"	90° 07' 24"
031	29° 20' 36"	90° 05' 06"

032	29° 18’ 48”	89° 52’ 18”
033	29° 19’ 12”	89° 53’ 48”
037	29° 20’ 48”	89° 49’ 24”
040	29° 27’ 48”	89° 54’ 36”
052	29° 21’ 48”	89° 45’ 24”

Sixteen-Foot Trawl Stations

Station	Latitude	Longitude
005	29° 25’ 30”	89° 56’ 00”
008	29° 18’ 30”	89° 56’ 00”
015	29° 15’ 18”	90° 01’ 36”
042	29° 20’ 18”	89° 52’ 12”
044	29° 11’ 45”	89° 57’ 06”
045	29° 15’ 03”	89° 54’ 12”
047	29° 16’ 18”	89° 55’ 58”
048	29° 15’ 00”	89° 58’ 00”
416	29° 26’ 13”	90° 03’ 56”
417	29° 33’ 13”	90° 01’ 27”
418	29° 29° 24”	90° 07’ 40”
419	29° 39’ 31”	90° 07’ 48”
420	29° 36’ 46”	90° 09’ 48”
421	29° 38’ 50”	90° 05’ 17”

Date: mm/dd/yyyy

Time: 24-hour scale (military)

Taxa: Identifies the species caught by common (not scientific) name.

Total Number Caught: The number of individuals of a given species caught in one trawl sample.

Number Measured: Up to 50 individuals (abundance permitting) of a given species are measured. (LDWF occasionally measured more than 50.)

Sex: Crabs (various species) are classified as male, female, or indeterminate.

Sample Duration: Ten minutes for all samples.

Length Group: The specimens are classified into “bins”, or groups, based on length. Group 1 comprises specimens between 1X and 2X the length interval, and so on. For most of the trawl data, *Length Group* represents a multiple of 5 millimeters. For example, “Length Group=10” means that the specimen was larger than 50 mm and smaller than 55 mm. Specimens smaller than the length interval specified in the variable, *Length Interval*, below, are consigned to Group 0.

Number of Specimens in Group: Reports the number of individual specimens (of the given species from the same sample) of the indicated size.

Length Interval: The length/size groups are multiples of this interval. In most cases, this interval is 5 millimeters, on some occasions, 1 millimeter. Instances of "0" millimeters (these are rare) mean that the entry under *Length Group* translates directly to length in millimeters. In other words, "0" means "1".

Maturity Stage: These classifications apply only to blue crabs: immature, resting stage, partial development (vitellogenesis), ripe development (gravid, mature), and spent.

Gear Type: Reports the sampling equipment used.

Gear Observation: Reports any problems or notable details of the sampling equipment, e.g.,"gear not operating efficiently" or "gear full of ctenophores ('jelly')".

Specimen Observation: Reports any notable details of the specimen(s), e.g. "organism dead prior to sampling," or "identification uncertain."

Stage Method: Reports the method of determining sexual maturity in blue crabs, either histological analysis or by gross observation. As of 2002, only gross observation has been used.

Total Number Caught Method: Reports the method of counting individual specimens, e.g. "exact count of complete sample", or "precise weight of complete sample."

Sample Duration Units: Reports the time units. Trawl sample duration is measured in minutes. Crab trap sample duration is measured in hours.

Length Method: Reports the units and method for measuring length of an individual specimen. Either total length in millimeters or standard length in millimeters.

LDWF Project: Reports which project the trawl sampling served.

LDWF Special Project: These indicate special sampling outside of the normal schedule and locations described above.

LDWF Coastal Study Area: All of these data are coded "3" indicating the area of the Davis Pond Diversion (Barataria Basin).

Bottom Water Temperature (C): Field measurement of bottom water temperature in degrees celsius.

Surface Water Temperature (C): Field measurement of surface water temperature in degrees celsius.

Bottom Specific Conductance (mS/cm): Millisiemens per centimeter.

Surface Specific Conductance (mS/cm): Millisiemens per centimeter.

Bottom Salinity (ppt): Parts per thousand, or milligrams per liter.

Surface Salinity (ppt): Parts per thousand, or milligrams per liter.

Air Temperature (C): Field measurement of air temperature in degrees celsius.

Turbidity: Turbidity is in inverse proportion to this measurement, which is visibility measured in feet.

Wind Direction: Compass bearing in degrees.

Wind Speed: Reported in knots.

Tide Stage: Recorded as: low rising, mid rising, high rising, high standing, high falling, mid falling, and low falling.

Seastate: Wave amplitude, estimated distance from crest to trough.

Percent Cloud Cover: Field estimate.

Conductivity Sampling Method: Reports equipment used for field measurement.

Water Temperture Sampling Method: Reports equipment used for field measurement.

Salinity Sampling Method: Reports equipment used for field measurement.

Air Temperature Sampling Method: Reports equipment used for field measurement.

Turbidity Sampling Method: Field method for measuring turbidity, mainly by Secchi disc.

Wind Sampling Method: Field method for estimating wind speed.

Tide Stage Method: In all cases, this is done by experiential estimate.